

Abstract

The granule consists of individual granules approximately spherical in shape, having a pore volume of 0.5 cm^3 , a mean diameter of pores of 50 nm or less, a specific surface area of $100 \text{ m}^2/\text{g}$ or less, and a bulk density of 0.7 g/cm^3 or higher. It is produced by dispersing a fumed silica obtained by hydrolysis of a silicon compound into pure water to obtain a slurry, and drying the slurry. The granule is used for producing high purity synthetic quartz glass powder. The method further comprises: a first heat treatment under an oxygen-containing atmosphere, a second heat treatment in a temperature range of from 600 to 1100 °C, and a third heat treatment in a temperature range of from 1100 to 1300 °C under an atmosphere containing hydrogen chloride; and a step of densification comprising calcining the product at a temperature not higher than 1500°C under vacuum or in an atmosphere of gaseous hydrogen or gaseous helium. To calcine the powder without causing fusion adhesion of the particles, bubbling fluidization of said porous silica granule is conducted by supplying gaseous helium and calcining thereof in a temperature range of from 1000 to 1600°C.